CLAIMS

What is claimed is:

- 1. A method of fabricating a heat and effusion resistant fuel tank comprising the steps of;
- combining a thermoplastic and amorphous silica into a compound, heating the compound, and forming a hollow fuel tank with a filler opening with the compound.
- 2. A method as set forth in claim 1 wherein the combining is further defined as mixing granules of the thermoplastic with a powder of amorphous silica.
 - 3. A method as set forth in claim 2 including heating the compound to a viscous form.
- 4. A method as set forth in claim 3 further defined as heating the compound to a temperature of between 200 and 500 degrees Fahrenheit.
 - 5. A method as set forth in claim 4 further defined as heating the thermoplastic to a viscous condition and then adding the amorphous silica powder.
 - 6. A method as set forth in claim 5 further defined as compounding the thermoplastic and amorphous silica in an extruder.

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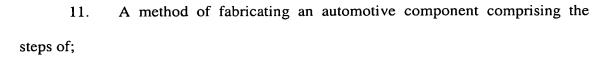
- 7. A method as set forth in claim 6 including extruding the compound into a strand and dividing the strand into pellets of the homogenous compound.
- 8. A method as set forth in claim 7 including heating the pellets of the compound into a viscous condition and molding the fuel tank.
 - 9. A method as set forth in claim 8 wherein the amorphous silica is in the range of 10% to 30% by volume of the compound.
- 10. A method of fabricating a heat and effusion resistant fuel tank comprising the steps of;

heating and mixing pellets of a thermoplastic with a powder of amorphous silica into a viscous compound, and

forming a hollow fuel tank with a filler opening with the compound.

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combining a thermoplastic and amorphous silica into a compound,

heating the compound, and

forming a component with the compound.

12. A method of fabricating a heat and effusion resistant fuel tank comprising the steps of;

adding granules of a thermoplastic into an extruder,

heating the granules of the thermoplastic in the extruder to reach a viscous condition,

adding an amorphous silica powder into the viscous thermoplastic to form a homogenous compound,

extruding the compound through the extruder to form a strand of the compound, cooling the strand into a solid,

chopping the strand into pellets;

pouring the pellets into a barrel of a molding machine;

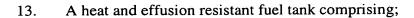
heating the barrel of the molding machine to turn the pellets into a viscous paste; and

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injecting the viscous paste into a mold to form a hollow fuel tank

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- a hollow body,
- a filler opening for receiving fuel,

said body and said neck consisting of a homogeneous thermoplastic

- 5 filled with amorphous silica.
 - 14. A heat and effusion resistant automotive component comprising of a homogeneous thermoplastic filled with amorphous silica.